ICANWK- level III-New-Identify and use current virtualisation technologies

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| Unit descriptor | This unit describes the performance outcomes, skills and knowledge required to use virtualisation technology to meet identified industry standards.  The unit emphasises the importance of constantly reviewing and demonstrating work processes, skills and techniques to ensure that the quality of the entire business process is maintained at the highest level possible through the appropriate application of virtualisation technology.  Users should confirm licensing, legislative, regulatory, or certification requirements with the relevant federal, state or territory authority. |
| Employability skills | This unit contains employability skills. |
| Application of the unit | This unit applies to individuals engaged in ongoing review and research in order to identify and apply industry technologies or techniques to improve aspects of the organisation’s activities. |
| Unit sector | General ICT |
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| ELEMENT | PERFORMANCE CRITERIA |
| Elements describe the essential outcomes of a unit of competency.F | Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide. |
| 1. Prepare to use virtualisation technologies | * 1. Identify organisational requirements and determine the need for ***desktop virtualisation software***   2. Identify ***virtualisation vendors*** and the different types of ***virtualisation technology*** they offer   3. Identify and review ~~classify and use~~ desktop virtualisation software where appropriate, for the benefit of the organisation   4. Select suitable desktop virtualisation software |
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| 1. Use desktop virtualisation software to assist in solving organisational problems | * 1. Conduct testing of desktop virtualisation software   2. Use features and functions of desktop virtualisation software within an organisational context   3. Demonstrate depth of knowledge of the desktop virtualisation technologies to an accepted industry standard   4. Access and use sources of information relating to the desktop virtualisation technology |
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| 1. Evaluate desktop virtualisation software performance | * 1. Review the effect of desktop virtualisation software on the benefits to the organisation   2. Ensure ***environmental factors*** are considered when using desktop virtualisation software   3. Seek ***feedback*** from users, where appropriate, and update desktop |
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| REQUIRED SKILLS AND KNOWLEDGE | |
| This section describes the skills and knowledge required for this unit. | |
| Required skills | |
| * basic research skills to locate appropriate sources of information regarding virtualisation technology * communication skills to:   + communicate with peers and supervisors   + seek assistance and expert advice   + seek feedback from users * literacy skills to interpret technical documentation, equipment manuals and specifications * safety awareness skills to work systematically with required attention to detail without injury to self or others, or damage to goods or equipment * technical skills to:   + identify features of virtualisation technology   + test and evaluate virtualisation technology   + use virtualisation technology | |
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| Required knowledge | |
| * broad awareness of current technology trends, directions in IT and specifically of the major industry technology standards used in virtualisation technology * vendor product directions relating to virtualisation technology * current industry hardware and software products, with broad knowledge of their general features, capabilities and application * information-gathering techniques * environmental/sustainable policies of organisation | |
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| RANGE STATEMENT | |
| The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included. | |
| ***Desktop virtualisation software*** may include: | * VMware workstation * VMware player * Microsoft virtual PC * KVM * [Parallels Desktop for Mac](http://en.wikipedia.org/wiki/Parallels_Desktop_for_Mac) * Sun Virtual Box * Hyper V (Microsoft) * VMware fusion (Mac) |
| ***Virtualisation vendors*** may include: | * VMware * Citrix * Oracle * Microsoft * Red Hat * Virtual Bridges * Proxmox * Parallels |
| ***Virtualisation technology*** may include: | * Server Virtualisation * Desktop Virtualisation * storage Virtualisation * Data Virtualisation * Network Virtualisation * Application Virtualisation |
| Sources of information may include: | * appliances software and technical connections guidance and other outputs supplied by vendors * documents * test pages * vendor guidance regarding requisite depth of knowledge in virtualisation technology * web pages |
| Environmental factors may include: | * correct disposal by an authorised body of redundant hardware * recycling * energy-efficiency consumption * green technology |
| Feedback may include: | * interviews * meetings |
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| EVIDENCE GUIDE | |
| The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package. | |
| Critical aspects for assessment and evidence required to demonstrate competency in this unit | Evidence of the ability to:   * identify current new and emerging virtualisation technology * Use features and functions of identified virtualisation technology to an industry standard level. |
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| Context of and specific resources for assessment | Assessment must ensure access to:   * site where industry-specific technologies may be used * industry-specific technologies currently used in industry * documents detailing OHS standards, environmental guidelines and organisational requirements * appropriate learning and assessment support when required * modified equipment for people with special needs. |
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| Method of assessment | A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:   * verbal or written questioning to assess candidate’s knowledge of features and functions of industry-specific technologies * direct observation of candidate using industry-specific technologies * simulation of industry-specific uses of the industry specific technologies. |
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| Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate.  Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed.  Indigenous people and other people from a non-English speaking background may need additional support.  In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge. |